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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/753,122	12/29/2000	John P. Proctor	M-7194-2P US	1908

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LAW OFFICE OF HARRY J. MACEY
1301 SHOREWAY ROAD, SUITE 121
BELMONT, CA 94002-4106

EXAMINER

DUNWOODY, AARON M

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 08/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/753,122

Applicant(s)

PROCTOR ET AL.

Examiner

Aaron M Dunwoody

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 19-29, 31-35 and 37-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 19-29, 31-35 and 37-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/12/2004 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 6, 19-21, 23, 24, 27-29, 31-35 and 37-41 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent 1608197, Bille. In regards to claim 1, Bille discloses a duct joining system, comprising:

a first duct (7) having a male end;

a flexible seal and locking mechanism (1) retained on the male end of the first duct; and

a second duct (6) having a female end having a first cross sectional area and a first bead of a second cross sectional area (8) that is greater than the first cross sectional area, whereby upon sliding the female end over the male end to

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where the flexible seal and locking mechanism is aligned with the first bead, the flexible seal and locking mechanism expands into the first bead to form both a seal and a mechanical lock that provides resistance to the separation of the first duct and the second duct greater than a resistance to the joining of the first duct and the second duct.

In regards to claim 2, Bille discloses the flexible seal and locking mechanism being a flexible gasket held on the male end at an angle relative to normal and away from the end of the first duct.

In regards to claim 3, Bille discloses the resistance to the separation of the first duct and the second duct being at least three times greater than the resistance to the joining of the first duct and the second duct.

In regards to claim 6, Bille discloses one of the first duct and the second duct being a fitting.

In regards to claim 19, Bille discloses an apparatus comprising: a first duct; a second duct, wherein a portion of the first duct is inserted into a portion of the second duct; and means for providing a seal and a mechanical connection between the first duct and the second duct when the portion of the first duct is inserted into a portion of the second duct, wherein the second duct has a raised bead into which the means is seated to form the seal and the mechanical connection when the portion of the first duct is inserted into the portion of the second duct.

In regards to claim 20, Bille discloses the first duct having a depressed bead into which the means is seated to form the seal and the mechanical

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connection when the portion of the first duct is inserted into the portion of the second duct.

In regards to claim 21, Bille discloses the means being a flexible gasket.

In regards to claim 23, Bille discloses the first bead comprising a circumferential groove in the second duct that has the second cross sectional, and the flexible seal and locking mechanism expanding into the circumferential groove to form both a seal and a mechanical lock that provides resistance to the separation of the first duct and the second duct greater than the resistance to the joining of the first duct and the second duct.

In regards to claim 24, Bille discloses the flexible seal and locking mechanism comprising a member that expands into the second bead, the member being a substantially triangular shape.

In regards to claim 27, Bille discloses a duct joining system comprising:

a first duct including a member disposed on an exterior surface of the first duct about a cross-section thereof; and

a second duct including a groove extending outward from an interior surface of the second duct about a cross-section thereof, whereby upon sliding the second duct over the first duct until the member is in the groove a seal and a resistance to a separation of the first duct and the second duct greater than a resistance to the insertion of the first duct into the second duct is provided by the member and the groove.

In regards to claim 28, Bille discloses the member comprising a flexible gasket that is at an angle relative to a normal of the first duct.

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In regards to claim 29, Bille discloses a stop bead on the exterior surface of the first duct.

In regards to claim 30, Bille discloses one of the first duct and the second duct being a fitting.

In regards to claim 32, Bille discloses a duct joining system comprising: a first duct including a member on an exterior surface thereof, the member having a height from the exterior surface; and

a second duct including a groove extending outward from an internal surface thereof, the groove having a depth from an interior surface thereof, wherein the depth of the groove and the height of the member are selected so that upon sliding the second duct over the first duct until the member is in the groove, a seal and a resistance to a separation of the first duct and the second duct greater than a resistance to the insertion of the first duct and the second duct is provided by the member and the groove.

In regards to claim 33, Bille discloses the groove comprising a circumferential groove, and the member flexes into the circumferential groove to form both a seal and a mechanical lock that provides the resistance to the separation of the first duct and the second duct greater than the resistance to the insertion of the first duct into the second duct.

In regards to claim 34, Bille discloses the member comprising a flexible gasket that is at an angle relative to a normal of the first duct.

In regards to claim 35, Bille discloses the member flexing into the groove.

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In regards to claim 37, Bille discloses one of the first duct and the second duct being a fitting.

In regards to claim 38, Bille discloses the means being carried by the portion of the first duct.

In regards to claim 39, Bille discloses a duct joining system comprising: a first duct; a member on an exterior surface of the first duct; and a second duct including a groove extending outward from an internal surface thereof, wherein the groove and member are configured to form a seal and a resistance to separation of the first and second ducts greater than a resistance to the insertion of the first duct and the second duct upon insertion of the first duct into the second duct to a position where the member is in the groove.

In regards to claim 40, Bille discloses the member being a flexible gasket.

In regards to claim 41, Bille discloses a duct joining system comprising a first duct having annular recess and a flexible seal disposed therein and a second duct having an annular recess, the system having an unassembled state, where the first duct with the flexible seal disposed in its annular recess is disconnected from the second duct, and an assembled state where a portion of one of the first and second ducts is in the other of the first and second ducts and the flexible seal is seated in both the first duct annular recess and the second duct annular recess so that it forms a seal and lock between the first and second ducts.

Note, a comparison of the recited process with the prior art processes does NOT serve to resolve the issue concerning patentability of the product. In

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re Fessman, 489 F2d 742, 180 U.S.P.Q. 324 (CCPA 1974). Whether a product is patentable depends on whether it is known in the art or it is obvious, and is not governed by whether the process by which it is made is patentable. In re Klug, 333 F2d 905, 142 U.S.P.Q. 161 (CCPA 1964). In an ex parte case, product-by-process claims are not construed as being limited to the product formed by the specific process recited. In re Hirao et al., 535 F2d 67, 190 U.S.P.Q. 15, see footnote 3 (CCPA 1976). Therefore, the system having an unassembled state, where the first duct with the flexible seal disposed in its annular recess is disconnected from the second duct, and an assembled state where a portion of one of the first and second ducts is in the other of the first and second ducts and the flexible seal is seated in both the first duct annular recess and the second duct annular recess so that it forms a seal and lock between the first and second ducts, is given little patentable weight.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 5, 7-12, 22, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bille in view of US patent 3955824, Ahlrot.

In regards to claim 4 and 7, Bille discloses the claimed invention except for a second duct having a male end having a first cross sectional area and a first

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bead of a second cross sectional area that is less than the first cross sectional area. Ahlrot teaches a second duct (1) having a male end having a first cross sectional area (6d) and a first bead (1a) of a second cross sectional area that is less than the first cross sectional area, to have an improved sealing arrangement (col. 1, lines 41-47). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a second duct with a male end having a first cross sectional area and a first bead of a second cross sectional area that is less than the first cross sectional area, to have an improved sealing arrangement, as taught by Ahlrot.

In regards to claim 4, Ahlrot further discloses a second bead positioned after the flexible seal and locking mechanism (2) that acts as a stop bead to ensure the second duct is properly positioned with the first duct when the first duct and the second duct are joined.

In regards to claim 5, Ahlrot further discloses a third bead on the first duct located between the flexible seal and locking mechanism and the end of the first duct, wherein the third bead has a diameter that is less than the diameter of the second bead.

In regards to claim 8, Bille discloses the flexible seal and locking mechanism being a flexible gasket held on the female end at an angle relative to normal and away from the end of the first duct.

In regards to claim 9, Bille in view of Ahlrot disclose the resistance to the separation of the first duct and the second duct being at least three times greater than the resistance to the joining of the first duct and the second duct.

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In regards to claim 10, Ahlrot discloses a second bead positioned after the flexible seal and locking mechanism that acts as a stop bead to ensure the second duct is properly positioned with the first duct when the first duct and the second duct are joined.

In regards to claim 11, Ahlrot discloses a third bead on the first duct located between the flexible seal and locking mechanism and the end of the first duct, wherein the third bead has a diameter that is greater than the diameter of the second bead.

In regards to claim 12, Bille discloses one of the first duct and the second duct being a fitting.

In regards to claim 22, Bille in view of Ahlrot disclose the first duct having a bead, the flexible gasket being mounted closer to the front of the first duct than the first duct bead, the flexible gasket having an angle relative to normal of the first duct.

In regards to claim 25, Bille in view of Ahlrot disclose the first bead comprising a circumferential groove in the second duct, and the flexible seal and locking mechanism expands into the circumferential groove to form both a seal and a mechanical lock that provides resistance to the separation of the first duct and the second duct greater than the resistance to the joining of the first duct and the second duct.

In regards to claim 26, Bille discloses the flexible seal and locking mechanism comprising a member that expands into the second bead, the member being substantially triangular in shape.

Response to Arguments

Applicant's arguments with respect to the claim above have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron M Dunwoody whose telephone number is 703-306-3436. The examiner can normally be reached on 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P Stodola can be reached on 703-306-5771. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

.amd



**Aaron Dunwoody
Patent Examiner
Technology Center 3670**